

REMARKS/ARGUMENTS

In the Office Action, the Examiner:

- 1) requested that the Applicants affirm the provisional election to prosecute the invention of Group I, claims 1-26;
- 2) rejected claims 1-13 under 35 U.S.C. § 112 as being indefinite;
- 3) rejected the following claims under 35 U.S.C. § 102(b) as being anticipated;
 - a) claims 1 and 6 anticipated by U.S. Patent No. 2,858,782, issued to Wade (hereinafter *Wade*);
 - b) claims 1 and 6 anticipated by U.S. Patent No. 2,042,176, issued to Hausman (hereinafter *Hausman*);
 - c) claims 1-3 anticipated by U.S. Patent No. 4,540,290, issued to Jarvinen et al. (hereinafter *Jarvinen*);
 - d) claims 1-5 and 20-23 anticipated by U.S. Patent No. 2,186,494, issued to Pflieger (hereinafter *Pflieger*);
 - e) claims 1-3 and 6-10 anticipated by U.S. Patent No. 2,034,419, issued to Potter (hereinafter *Potter*);
- 4) rejected the following claims under 35 U.S.C. § 103(a) as being obvious;
 - a) claims 24-25 unpatentable over *Pflieger*;
 - b) claims 4-5 and 11-19 unpatentable over *Potter* in view of *Pflieger*;
- 5) objected to claims 19 and 26 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Affirmation of Provisional Election to Prosecute Group I, Claims 1-26

Under 35 U.S.C. 121, Applicants are restricted to one of the following inventions: invention I, defined by claims 1-26 drawn to a tank with motor and shaft, and invention II, defined by claim 27 drawn to a method of agitating. During a telephone conversation with the Examiner on September 5, 2006, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-26, and to withdraw Group II, claim 27, from further consideration. Applicants hereby affirm the election to prosecute Group I and to withdraw Group II.

Rejections based on 35 U.S.C. § 112 as Indefinite

The Examiner rejected claims 1-13 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention. Specifically, the Examiner found the scope of claim 1 to be unclear due to the phrase "said fluid-free compartment". Similarly, the Examiner found the scope of claim 6 to be unclear due to the phrase "a fluid-free compartment". Claims 1 and 6 are currently amended to delete the term "fluid-free". Since there is only one compartment defined by claims 1 and 6 and their dependent claims, the descriptor "fluid-free" is unnecessary, as is any other descriptor that may be used instead. In view of these amendments, dependent claims 3-5, 7, and 11 are similarly amended to remove the term "fluid-free". Applicants believe that these amendments overcome the Examiner's rejection of claims 1 and 6 as being indefinite and respectfully request the Examiner to withdraw his rejections of these claims.

Rejections based on 35 U.S.C. § 102(b) as Anticipated

The Examiner rejected claims 1-10 and 20-23 under 35 U.S.C. § 102(b) as anticipated by various U.S. patents. Applicants respond to each rejection as follows.

Claims 1 and 6 as Anticipated by *Wade*

Wade teaches a device for making coffee, tea, or similar beverages. Col. 1, Lines 15-16. A container 10 is formed open at its upper end, and is closing during the brewing of the beverage by a combined lid and agitating assembly generally designated 28. Col. 2, Lines 14-16. Assembly 28 includes a cupped casing 30 housing a motor 36. Col. 2, Lines 17- 23. A shaft 34 extends from the motor 36 through an opening in the bottom of the casing 30 into fluid contained by the container 10 for making a beverage. Col. 2, Lines 21-23. While the opening in the casing 30 for the shaft 34 is sealed via seal 32 and the opening between the lid 44 and casing 30 for the power cord 48 is sealed via grommet 46, *Wade* does not teach nor does it suggest pressurizing the agitating assembly 28 to prevent exposure of the motor 36 to fluid in the container 10. Col. 2, Lines 19-20, 28-30.

The present disclosure teaches a vessel 10 that is pressurized to keep the drilling mud 24 below platform 15 upon which motor 37 is seated and thus prevent exposure of the motor 37 to the drilling mud 24. [Para. 0033] Claim 1 is currently amended to include the substance of dependent claim 2, thereby adding the limitation that the vessel is pressurized to a pressure exceeding the ambient air pressure. As described above, *Wade* does not satisfy this limitation. Hence, *Wade* does not anticipate the scope of amended claim 1. Claims 3-5 depend from claim 1 and are also not

anticipated by *Wade* for at least the same reasoning. In view of this amendment to claim 1, claim 2 is hereby canceled and claim 3 is currently amended to depend from claim 1, rather than claim 2.

Similarly, claim 6 is currently amended to include the substance of dependent claim 8, thereby adding the limitation that the compartment in the vessel is pressurized to a pressure exceeding the ambient air pressure. As described above, *Wade* does not teach pressurizing the agitating assembly 28. Hence, *Wade* does not anticipate the scope of amended claim 6. Claims 7 and 9-10 depend from claim 1 and are also not anticipated by *Wade* for at least the same reasoning. In view of this amendment to claim 6, claim 8 is hereby canceled and claim 9 is currently amended to depend from claim 7, rather than claim 8.

Claims 1 and 6 as Anticipated by *Hausman*

Hausman teaches a mixing device that, for example, can be used to mix cocktails and malted milk. Col. 1, Lines 1-3. A receptacle 10 is formed in the shape of a cup. Col. 1, Lines 37-38. A domed cap 11 closes the top of the receptacle 10. Col. 1, Lines 39-40. Tubular casing 14, divided into two chambers 15, 16 by a diaphragm 17, projects through the domed cap 11. Col. 1, Lines 45-46. Chamber 15 houses a motor 18 while chamber 16 houses a battery 19. Col. 1, Lines 48-49. An armature shaft 31 extends from the motor 18 through a bearing 30 fitted to the base of the casing 14 into the receptacle 10 where the armature shaft 31 is connected to an agitator 32. Col. 2, Lines 15-20. In operation, ingredients to be mixed are placed in the receptacle 10. Col. 2, Lines 23-24. The agitator 32 is attached to shaft 31, and the cap 11 is then secured to the receptacle 10. Col. 2, Lines 24-26. The battery 19 is activated causing the motor 18 to rotate the shaft 31 and the attached agitator 32, thereby mixing the ingredients in the receptacle 10. As in the case of *Wade*, *Hausman* does not teach pressurizing the casing 14 where the motor 18 is housed. Hence, *Hausman* does not anticipate the scope of amended claims 1 and 6 nor their dependent claims 3-5, 7, and 9-10 for at least the same reasoning.

Claims 1-3 as Anticipated by *Jarvinen*

Jarvinen teaches an aerator and/or mixing apparatus which is immersed onto the bottom of a basin or tank containing liquid. Col. 1, Lines 5-7. In operation, the apparatus is lowered onto the bottom of a basin and gas is then conducted into the basin through a rotor 8 in order to aerate the basin or to mix the liquid in the basin. Col. 1, Lines 58-60; Col. 1, Line 68 - Col. 2, Lines 1-3. The apparatus comprises an operation unit above a frame plate 5 and a mixing unit below the frame plate 5. Col. 1, Lines 62-65. The mixing unit comprises the rotating rotor 8. Col. 1, Lines 65-68. The

operation unit comprises an outer casing 15 attached to the top of the frame plate 5. Col. 2, Lines 28-30. A pipe 9 extends through the upper part of the outer casing 15 into the operation unit, meaning the volume created by the outer casing 15 and the frame plate 5. Figure 1. Gas is conducted via pipe 9 through the outer casing 15 into the operation unit, through a valve 10 installed in the pipe 9, and into an air guide casing 11 to cool a motor 12 and power transmission equipment 13 housed within the air guide casing 11. Col. 2, Lines 4-9; Figure 1. The motor 12 is positioned on top of the power transmission equipment 13 which is, in turn, secured to the top of the frame plate 5. Figure 1. A drive shaft 17 extends from the power transmission equipment 13 downward through the frame plate 5 into the mixing unit. Figure 1. A collar-like axis 18 is fitted to the drive shaft 17 to connect the drive shaft 17 to the rotor 8. The collar-like axis 18 has apertures 19 through which gas flows from the operation unit onto the rotor 8. Col. 2, Lines 23-25.

Claim 1 of the present disclosure teaches "a motor housed in said compartment and *a shaft connected to said motor* and extending from said compartment and into said fluid." (emphasis added) By contrast, *Jarvinen* discloses a drive shaft 17 connected to the power transmission equipment 13, not the motor 12, and extending downward from the operation unit through the frame plate 5 into the mixing unit. Therefore, *Jarvinen* does not teach "a shaft connected to said motor". Hence, *Jarvinen* does not anticipate the scope of amended claim 1 nor its dependent claim 3 for at least the same reasoning.

Claims 1-5 and 20-23 as Anticipated by *Pfleger*

Pfleger teaches a structure adapted to be submerged in a liquid in a well, wherein the structure may be a fluid tight electric motor. Col. 1, Lines 1-4. The structure disclosed by *Pfleger* comprises a motor casing 4 housing a submersible electric motor 3. Col. 2, Lines 37-38. The motor casing 4 is disposed within a well containing well liquid 2, which is usually water, in most instances carrying impurities or foreign matter in suspension. Col. 2, Lines 29-31, 38-39. When the motor 3 is inactive or dennergized, an insulating neutral liquid, preferably oil, fills the casing 4 completely to its top. Col. 3, Lines 4-7. When the motor 3 is active or energized, the level of oil filling 13 is lowered so as to be a substantial distance below the top of the casing 4. Col. 3, Lines 7-10. The lowering of the level of the body of liquid 13 upon energization of the motor 3 is accomplished by passing a suitable gaseous medium under pressure, for example compressed air, into the casing 4 causing the liquid 13 to be expelled through a conduit 20 into a storage receptacle 21. Col. 3, Lines 15-19, 44-45.

The present disclosure teaches a controller 75 that "actuates compressor 80 to pressurize the interior volume 32 of compartment 16 and to maintain the drilling mud level 50 at a level that is beneath platform 15. Due to this pressurization, mud level 50 is thus well below the level 55 to which the drilling mud extends elsewhere in mud tank 25. Essentially then, compartment 16 is dry or fluid-free such that a conventional motor (as opposed to a more expensive submersible motor) may be employed in vessel 10 to actuate the agitator 20 within the tank 25." [Para. 0033] Thus, the present disclosure teaches a compartment 16 that is dry, meaning free from any liquids, including the drilling mud 24, so that a conventional motor, rather than a submersible motor, may be employed. To reflect this, claim 1 is currently amended to include a limitation requiring "a compartment that is free of liquid". As described above, *Pfleger* cannot satisfy this limitation because the motor casing 4 is not continuously pressurized to prevent the motor 3 from exposure to liquid. In fact, *Pfleger* teaches the use of a submersible electric motor 3 that is submerged in an insulating neutral liquid 13 when the motor 3 is inactive or denegized. Therefore, *Pfleger* does not teach "a compartment that is free of liquid". Hence, *Pfleger* does not anticipate the scope of amended claim 1 nor its dependent claims 3-5 for at least the same reasoning.

Claim 20 of the present disclosure teaches "a vessel having an opening at a first end thereof and fluid surrounding said vessel *and* entering into said opening to a first fluid level". (emphasis added) By contrast, *Pfleger* discloses the motor casing 4 surrounded by well liquid 2, wherein the well liquid 2 does not enter the motor casing 4. Insulating neutral liquid 13, preferably oil, enters the motor casing 4 when the motor 3 is inactive, and a suitable gaseous medium under pressure, for example compressed air, enters the motor casing 4 when the motor is active. Thus, the fluid surrounding the motor casing 4 is not the same fluid which enters the motor casing 4 regardless of whether the motor 3 is active or not. Since *Pfleger* cannot satisfy the above quoted limitations of claim 20, *Pfleger* does not anticipate claim 20 nor its dependent claims 21-23 for at least the same reasoning.

Claims 1-3 and 6-10 as Anticipated by *Potter*

Potter teaches bore hole pump equipment in which the pump and a motor for driving the pump are arranged in close association for introduction into a bore hole, wherein the motor is protected against liquid in the bore hole. Col. 1, Lines 1-6. The bore hole pump equipment comprises a pump 1 and an electric motor 2. Col. 3, Lines 59-60. This equipment is lowered down the bore hole by means of a tube 4. Col. 3, Lines 63-65. The bore hole is lined, and an annular space 17 exists between the bore hole lining and the tube 4. Col. 4, Lines 34-35. A compressor 12 with reservoirs 13 provides air

via piping 14 to the annular space 17 forcing water in the annular space 17 downward until the water level reaches a level at which air can enter via ports 8 into an air chamber 3 supporting the electric motor 2. Col. 4, Lines 30-40. The upper end of the tube 4 is supported by a head fitting 9 having a delivery 10 and being closed by a removable cover 11 which may be readily removed for raising or lowering the pump equipment by such means as a hoist. Col. 4, Lines 20-25.

As amended, claim 1 of the present disclosure teaches "a tank containing fluid, said tank including an exterior that is in contact with air at an ambient air pressure". By contrast, *Potter* discloses a bore hole liner containing liquid but having an exterior that is not in contact with air at an ambient air pressure. The liner, instead, is surrounded entirely by formation except at its upper end where a fitting 9 is installed and closed by a removable cover 11. Since *Potter* cannot satisfy the above quoted limitation of amended claim 1, *Pfleger* does not anticipate claim 1 nor its dependent claim 3 for at least the same reasoning.

Similarly, claim 6, as amended, teaches "an enclosure containing fluid extending to a first level in said enclosure, said enclosure including a top and an exterior that is in contact with air at an ambient air pressure". As discussed above, *Potter* cannot satisfy this limitation of amended claim 6. Thus, *Potter* does not anticipate claim 6 nor its dependent claims 7, 9, and 10.

Applicants believe that the amendments to claims 1 and 6, as well as the minor amendments to their dependent claims 3 and 9, overcome the Examiner's rejection of claims 1 and 6 as anticipated by *Wade*, *Hausman*, *Jarvinen*, *Pfleger*, and/or *Potter*. Applicants also believe that claims 20-23 are not anticipated by *Pfleger* for reasons presented above. As such, Applicants respectfully request the Examiner to withdraw his rejections of claims 1-10 and 20-23.

Rejections based on 35 U.S.C. § 103(a) as Obvious

The Examiner rejected claims 4, 5, 11-19, and 24-25 under 35 U.S.C. § 103(a) as obvious in view of *Pfleger* and *Potter*. Applicants respond to each rejection as follows.

Claims 24-25 as Unpatentable over Pfleger

Claims 24-25 were rejected as being unpatentable over *Pfleger*. A valid obviousness-type rejection of these claims based on *Pfleger* requires that *Pfleger* teach or suggest all limitations found in the rejected claims. Claims 24 and 25 depend from claim 20. As discussed above, *Pfleger* does not teach all of the limitations of claim 20. Specifically, *Pfleger* does not teach "a vessel having an opening at a first end thereof and fluid surrounding said vessel *and* entering into said opening to a

first fluid level". (emphasis added) Nor does *Pfleger* suggest this limitation. In fact, *Pfleger* teaches away from permitting any well liquid 2, which surrounds the motor casing 4, from entering into that casing 4. *Pfleger* states "For this reason it is highly desirable to exclude the well liquid 2 from the interior of any submersible motor and to prevent injury to the current carrying parts enclosed within the motor casing or to the bearing structures therein." Col. 2, Lines 31-36. To prevent well liquid 2 from entering the motor casing 4, *Pfleger* teaches the introduction of insulating neutral liquid 13, preferably oil, into the casing 4 when the motor 3 is inactive and a suitable gaseous medium under pressure, for example compressed air, when the motor is active. Col. 3, Lines 7-10, 15-19, 44-45. Because *Pfleger* does not teach or suggest all limitations of claim 20, *Pfleger* does not render obvious the scope of claims 24 and 25.

Claims 4, 5, and 11-19 as Unpatentable over Potter in view of Pfleger

Claims 4, 5, and 11-19 were rejected as being unpatentable over *Potter* in view of *Pfleger*. References combined in an obviousness-type rejection must teach or suggest all of the limitations found in the rejected claims. The Examiner relies on *Pfleger* to teach a level control mechanism and circuitry while he relies on *Potter* to teach all of the other limitations of the rejected claims.

Claims 4 and 5 depend from claim 1. Thus, in order for claims 4 and 5 to be rendered unpatentable over *Potter* in view of *Pfleger*, *Potter* must teach or suggest all limitations of claim 1. As discussed above, *Potter* does not teach all of the limitations of claim 1, in particular the limitation requiring "a tank containing fluid, said tank including an exterior that is in contact with air at an ambient air pressure". Moreover, *Potter* does not suggest this limitation. *Potter* teaches bore hole pump equipment in which the pump and a motor for driving the pump are arranged in close association *for introduction into a bore hole*, wherein the motor is protected against liquid in the bore hole. (emphasis added) Col. 1, Lines 1-6. As disclosed by *Potter*, the bore hole liner containing fluid, into which the bore hole pump equipment comprising the pump 1 and electric motor 2 is lowered, is located downhole and surrounded entirely by formation except at its upper end where a fitting 9 is installed and closed by a removable cover 11. Thus, *Potter* does not suggest a "tank including an exterior that is in contact with air at an ambient air pressure" and in fact teaches away from this limitation by lowering the bore hole pump equipment into a liner located downhole. Because *Potter* does not teach or suggest all limitations of claim 1, the combination of *Pfleger* and *Potter* does not render obvious the scope of claims 4 and 5.

Claims 11-13 depend from claim 6. Thus, in order for claims 11-13 to be rendered unpatentable over *Potter* in view of *Pfleger*, *Potter* must disclose all limitations of claim 6. As

discussed above, *Potter* does not teach or suggest all of the limitations of claim 6, in particular the limitation requiring "an enclosure containing fluid extending to a first level in said enclosure, said enclosure including a top and an exterior that is in contact with air at an ambient air pressure". Hence, the combination of *Pfleger* and *Potter* does not render obvious the scope of claims 11-13.

Claim 14 is an independent claim and claims 15-19 depend from it. In order for claims 14-19 to be rendered unpatentable over *Potter* in view of *Pfleger*, *Potter* must teach or suggest all limitations of claim 14 except those related to the level control mechanism and circuitry, which as stated above, are disclosed by *Pfleger*. Claim 14 of the present disclosure teaches an apparatus comprising "an agitator connected to said shaft and disposed in said fluid beneath said second level". By contrast, *Potter* does not teach an agitator connected to the motor shaft. Instead, the motor shaft extends downward from the electric motor 2 and is coupled to one end of the pump shaft. Col. 4, Lines 3-4; Figure 1. The other end of the pump shaft is connected to the pump 1. Figure 1. Nor does *Potter* suggest connecting an agitator to the motor shaft. *Potter* teaches an invention that "relates to bore hole pump equipments of the kind in which the pump and a motor for driving the pump are arranged in close association for introduction into the bore hole, the motor being protected against the action of liquid within the bore hole ...". Col. 1, Lines 1-6. Given this purpose, it is understandable why *Potter* does not suggest agitation. Moreover, *Potter* teaches away from connecting an agitator to the motor shaft because *Potter* does not provide a place for attachment of an agitator to the motor shaft. Both ends of the motor shaft are connected to other components, specifically, one end to the motor and the other end to the pump shaft. Thus, *Potter* does not teach or suggest the above quoted limitation of claim 14. For this reason, the combination of *Potter* and *Pfleger* does not render obvious the scope of claim 14 nor its dependent claims 15-19.

Objections to Claims 19 and 26

The Examiner objected to claims 19 and 26 as being dependent upon rejected base claims, but would find claims 19 and 26 to be allowable if rewritten in independent form including all of the limitations of the rejected base claim and any intervening claims. Claim 19 depends from claim 14, while claim 26 depends from claim 25. For reasons presented above, Applicants believe claims 14 and 25 are in allowable form. Therefore, Applicants believe claims 19 and 26 are not dependent upon rejected base claims. Applicants believe claims 19 and 26 are in allowable form and respectfully request the Examiner to withdraw his objections to these claims.

Conclusion

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which are yet to be raised, but which may be raised in the future.

Applicants believe that all claims are free of the prior art and are in condition for allowance. Entry of the amendments and allowance of all pending claims is respectfully requested. If the Examiner feels that a telephone conference would expedite the resolution of this case, he is respectfully requested to contact the undersigned. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore. If any fee is due, please appropriately charge such fee to Deposit Account Number 03-2769 of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,



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